Form (H)
Short course description

Course title: History of mathematics	Course number and code: MATH 391
Previous course requirement: None	Language of the course: Arabic and English
Course level: 6th level	Effective hours: 2 (2+0+0)

Course description

Mathematics in Babylonia and Egypt. The Greek mathematics. History of mathematics in India and China. Mathematics in the Islamic age. Development of mathematics in Europe from the seventeenth century up to now.

Course objectives

1- Study of the origin of arithmetic.
2- Understanding the role of the Greeks in using mathematical logic in proofs.
3- Study of the use of symbols to denote numbers.
4- Study of the translation activity relevant to mathematical sciences in the Islamic age.
5- Study of the development of mathematics in the Islamic age.
6- Understanding the role of the Europeans in development of mathematics in the late centuries.

Learning outcomes (understanding, knowledge, and intellectual and scientific skills)
After studying this course, the student is expected to be able to:

1- Explain the bases of numbers such as the hexadecimal system in Babylonia.
2- Explain the representation of numbers using Egyptian fractions.
3- Explain the Greek accomplishments in plane and solid geometry.
4- Explain the accomplishments of Arabs and Muslims in algebra.
5- Explain the accomplishments of Arabs and Muslims in trigonometry.
6- Explain the origin and development of differential and integral calculus in Europe.
7- Explain the origin and development of the main branches of mathematics such as algebra, analysis, geometry, and topology.

Textbook adopted and supporting references

Title of the book	Author's name	Publisher's name	Date of publication
1- The Norton history of the mathematical sciences: the rainbow of mathematics	Ivor Grattan-Guinness	HarperCollins publishers Ltd	1998
2- Episodes in the mathematics of medieval Islam	J. L. Berggren	Springer-Verlag, New York, Inc.	2003
3- An Episodic History of Mathematics: Mathematical Culture Through Problem Solving	Steven G. Krantz	MAA	2010